



MARINE SCIENCE CO., LTD.

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FOOD INGREDIENT

CA-030527-01

QUALITY SPECIFICATION

Product	KS-50F, Refined Carrageenan	
Manufacture	MSC CO.,LTD.(KOREA)	
Importer	MARINE SCIENCE CO.,LTD.	
Summary	KS-50F is compound based on mixed Kappa and Iota types carrageenan which have taste-less and smell-less natural polymeric hydrocolloid extracted from red algae (<i>Kappaphycus Alvarezii</i> & <i>Eucheuma Denticulatum</i>), it is standardized by salts.	
Characteristics	<p>① KS-50F have water solubility, it better to use cold water or mix with solid material like sugar for safety dispersion.</p> <p>② The dispersed solution need to heat more than 60°C for complete dissolve.</p> <p>③ KS-50F have excellent combination with protein, we can suggest to use for the processed meat or seafood.</p> <p>④ KS-50 have faculty of restoration to its original state from defrost with quite low water syneresis.</p> <p>⑤ KS-50 have quite unique quality of two types mixed carrageenan, Kappa-K and Iota, and available to use both character.</p>	
Expiration Date	unopened	24 months from date of manufacture (Storage at dry and cool room)
	opened	30 days (Storage at dry and cool room)
Package	Outer	Woven cloth laminated paper bag
	Inner	Low-density Polyethelene bag for food (20kg × 1 bag)
Labeling for usage of food	Gel agent	
Information of Material		
GMO material	No use the GMO materials and their processed.	
Allergen material	No use the materials of rice, crustacean and the product origin including the 25 items is assigned by Japan	
Bovine original	No use the materials origin livestock meets including brain, eye, spinal cord, and around bowel	
Agricultural chemical residual	Never used agrichemicals. or We would ensure standard value based of the Food hygiene law	
Unapproved Ingredient	No use the unapproved Ingriegient in Japan.	
Product standard		
Standardize Items	Specifications	Analysis method
Type of Carrageenan	Kappa + Iota type	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Appearance		
Particle size	Pass 200mesh more than 98%	JIS Standard riddle pass
Loss on dry	Less than 12%	Japanese standard of Food additive seventh edition 'Refined carrageenan'
pH	7~8	1.5% sol. at 20°C, pH meter
Viscosity (75°C)	20~30 m Pa/s	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Viscosity (30°C)		
Water gel strength	100~200 g/cm ²	1.5% sol. at 20°C, reo meter
Solt gel strength	200~500 g/cm ²	1.5% + 0.2% KCL sol. at 20°C, reo meter
Milk gel strength	150~250 g/cm ²	0.5% + 10% skimmed milk sol. At 20°C, reo meter
Plate coliform count	Less than 3000 /g	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Coliform	Negative	BGLB broth
E.coli	Negative	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Yeast & Mold	Negative	Potato dextrose broth
Sulfate	15~25%	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Acid insoluble	Less than 2%	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Ash	15~40%	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Ash acid-insoluble	Less than 1%	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Arsenic(as AS ₂ O ₃)	Less than 3 μg/g	Japanese standard of Food additive seventh edition 'Refined carrageenan'
Heavy metal(as Pb)	Less than 40 μg/g	Japanese standard of Food additive seventh edition 'Refined carrageenan'